

AMENDMENTS

In the Claims:

Claim 1 (currently amended): A tone signal generation system comprising:

an operation terminal that is capable of being carried by a human operator and that generates and transmits motion information corresponding to a motion of the human operator carrying said operation terminal; and

a tone signal generation apparatus that receives the motion information from said operation terminal and detects a movement trajectory of said operation terminal corresponding to the motion of the human operator on the basis of the received motion information, said tone signal generation apparatus generating a tone signal on the basis of the detected movement trajectory of said operation terminal, wherein said tone signal generation apparatus detects which one of a plurality of predetermined typical shapes a shape of the detected movement trajectory of said operation terminal corresponds to.

Claim 2 (original): A tone signal generation system as claimed in claim 1 wherein said tone signal generation apparatus includes a table storing at least one possible movement trajectory of said operation terminal and at least one tone signal in association with each other, and said tone signal generation apparatus generates a tone signal by referring to stored contents of said table.

Claim 3 (original): A tone signal generation system as claimed in claim 2 wherein the stored contents of said table are rewritable.

Claim 4 (currently amended): A tone signal generation system ~~as claimed in claim 1~~ comprising:

an operation terminal that is capable of being carried by a human operator and that generates and transmits motion information corresponding to a motion of the human operator carrying said operation terminal; and

a tone signal generation apparatus that receives the motion information from said operation terminal and detects a movement trajectory of said operation terminal corresponding to the motion of the human operator on the basis of the received motion information, said tone signal generation apparatus generating a tone signal on the basis of the detected movement trajectory of said operation terminal, wherein said tone signal generation apparatus determines a first parameter for generating a tone signal in accordance with a shape of the movement trajectory of said operation terminal, a second parameter for generating a tone signal in accordance with a size of the movement trajectory, and a third parameter for generating a tone signal in accordance with a moving speed or acceleration of the movement trajectory.

Claim 5 (original): A tone signal generation system as claimed in claim 4 wherein each of said first, second and third parameters is a parameter for setting or controlling any one of tone color, tone volume, tone pitch and effect.

Claim 6 (canceled)

Claim 7 (currently amended): A tone signal generation system as claimed in claim 1 ~~claim 6~~ wherein the plurality of predetermined typical shapes include at least one of a circular shape, shape of a numeral "8", obliquely-cut surface shape, elongated oval shape, rectangular shape and spiral shape.

Claim 8 (original): A tone signal generation system as claimed in claim 1 wherein said tone signal generation apparatus detects, as the movement trajectory of said operation terminal, at least one of a plurality of trajectory elements including an approximate shape, approximate size and approximate moving speed or acceleration of the movement trajectory.

Claim 9 (currently amended): A tone signal generation apparatus comprising:

12 a receiver that receives motion information transmitted from an operation terminal capable of being carried by a human operator, the motion information corresponding to a motion of the human operator carrying the operation terminal;

a processing section that detects a movement trajectory corresponding to the motion of the human operator on the basis of the motion information received by said receiver; and

a tone signal generation section that generates a tone signal on the basis of the movement trajectory of the operation terminal detected by said processing section, wherein said processing section detects which one of a plurality of predetermined typical shapes a shape of the detected movement trajectory of said operation terminal corresponds to.

Claim 10 (currently amended): A tone signal generation system comprising:

an operation terminal that is capable of being carried by a human operator and has a predetermined portion made of an elastically-deformable material, said operation terminal including a sensor positioned within the predetermined portion for detecting an amount of displacement, caused by deformation, of the predetermined portion, said operation terminal transmitting displacement amount information indicative of the amount of displacement detected via the sensor; and

B' a tone signal generation apparatus that receives the displacement amount information transmitted from said operation terminal and generates a tone signal on the basis of the received displacement amount information, wherein said tone signal generation apparatus, in accordance with the displacement amount information received from said operation terminal, refers to a tone signal table having stored therein various displacement amount values to be indicated by pieces of displacement amount information and pieces of tone waveform information in association with each other, so as to read out one of the pieces of tone waveform information corresponding to the detected amount of displacement indicated by the received displacement amount information, said tone signal generation apparatus generating the tone signal on the basis of the read-out tone waveform information and wherein a plurality of the tone signal tables are prepared in advance for individual ones of different contact surface materials, and any one of the tone signal tables is selectable by the human operator.

Claim 11 (original): A tone signal generation system as claimed in claim 10 wherein said operation terminal is in the form of a shoe wearable by the human operator, and said predetermined portion is a bottom of the shoe.

Claim 12 (canceled)

Claim 13 (currently amended): A tone signal generation apparatus capable of being carried by a human operator, said tone signal generation apparatus comprising:

a sensor section that generates motion information corresponding to a motion of the human operator carrying said tone signal generation apparatus;

a processing section that detects a movement trajectory of said tone signal generation apparatus corresponding to the motion of the human operator on the basis of the motion information generated by said sensor section; and

B' a tone signal generation section that generates a tone signal on the basis of the movement trajectory detected by said processing section, wherein said processing section detects which one of a plurality of predetermined typical shapes a shape of the detected movement trajectory of said tone signal generation apparatus corresponds to.

Claim 14 (currently amended) A tone signal generation apparatus capable of being carried by a human operator and in a shape of a stick, said tone signal generation apparatus comprising:


a detection section that has a predetermined portion made of an elastically-deformable material and a sensor positioned within the predetermined portion for detecting an amount of displacement, caused by deformation, of the predetermined portion; and

a tone signal generation section that generates a tone signal on the basis of displacement amount information indicative of the amount of displacement detected by said detection section.

Claim 15 (currently amended): A method of generating a tone signal corresponding to a motion of a human operator carrying an operation terminal, said method comprising:

a step of detecting a movement trajectory of said operation terminal corresponding to the motion of the human operator; and

a step of generating a tone signal on the basis of the movement trajectory detected by said step of detecting, wherein said step of detecting detects which one of a plurality of predetermined typical shapes a shape of the detected movement trajectory of said operation terminal corresponds to.

 Claim 16 (currently amended): A method of generating a tone signal corresponding to a motion of a human operator carrying an operation terminal, said method comprising:

a detection step of detecting an amount of displacement, caused by deformation, of a predetermined portion, made of an elastically-deformable material, of said operation terminal; and

a tone signal generation step of generating a tone signal on the basis of the received information indicative of the amount of displacement detected by said detection step, wherein in accordance with the displacement amount information received from said operation terminal, said method including a step of referring to a tone signal table having stored therein various displacement amount values to be indicated by pieces of displacement amount information and pieces of tone waveform information in association with each other, so as to read out one of the pieces of tone waveform information corresponding to the detected amount of displacement indicated by the received displacement amount information, said tone signal generation step generating the tone signal on the basis of the read-out tone waveform information and wherein a plurality of the tone signal tables are prepared in advance for individual ones of different contact surface materials, and any one of the tone signal tables is selectable by the human operator.

Claim 17 (original): A computer program comprising computer program code means for performing all the steps of claim 15 when said program is run on a computer.

Claim 18 (original): A computer program comprising computer program code means for performing all the steps of claim 16 when said program is run on a computer.

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Claim 19 (currently amended): A machine-readable storage medium containing a group of instructions to cause said machine to perform a method of generating a tone signal corresponding to a motion of a human operator carrying an operation terminal, said method comprising:

a step of detecting a movement trajectory of said operation terminal corresponding to the motion of the human operator; and

a step of generating a tone signal on the basis of the movement trajectory detected by said step of detecting, wherein said step of detecting detects which one of a plurality of predetermined typical shapes a shape of the detected movement trajectory of said operation terminal corresponds to.

Claim 20 (currently amended): A machine-readable storage medium containing a group of instructions to cause said machine to perform a method of generating a tone signal corresponding to a motion of a human operator carrying an operation terminal, said method comprising:

a detection step of detecting an amount of displacement, caused by deformation, of a predetermined portion, made of an elastically-deformable material, of said operation terminal; and


131 a tone signal generation step of generating a tone signal on the basis of the received information indicative of the amount of displacement detected by said detection step, wherein in accordance with the displacement amount information received from said operation terminal, said method including a step of referring to a tone signal table having stored therein various displacement amount values to be indicated by pieces of displacement amount information and pieces of tone waveform information in association with each other, so as to read out one of the pieces of tone waveform information corresponding to the detected amount of displacement indicated by the received displacement amount information, said tone signal generation step generating the tone signal on the basis of the read-out tone waveform information and wherein a plurality of the tone signal tables are prepared in advance for individual ones of different contact surface materials, and any one of the tone signal tables is selectable by the human operator.

Claim 21 (canceled)

Claim 22 (canceled)

Claim 23 (canceled)

Claim 24 (currently amended): A tone signal generation system comprising:

 ~~an operation terminal~~ a stick-shaped operation terminal that is capable of being carried by a human operator and has a predetermined portion, said operation terminal detecting an amount of displacement of the predetermined portion caused by hitting a predetermined object with said operation terminal, said operation terminal transmitting displacement amount information indicative of the detected amount of displacement; and

a tone signal generation apparatus that receives, from said operation terminal, the displacement amount information indicative of the detected amount of displacement and generates a tone signal on the basis of the received displacement amount information.

Claim 25 (new): A tone signal generation system as claimed in claim 24, wherein said operation terminal detects the amount of displacement via a motion sensor provided at a distal end portion of said operation terminal.
